

# 'Abdominal surgery' camera cluster 'hegemony' on Galaxy S20 Ultra - What's special?

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Samsung Galaxy S20 Ultra has just launched a while ago and is considered one of the smartphones with the best mobile photography and video recording capabilities in the world, including the tremendous zoom ability. to 100x. So what makes such a great camera cluster?

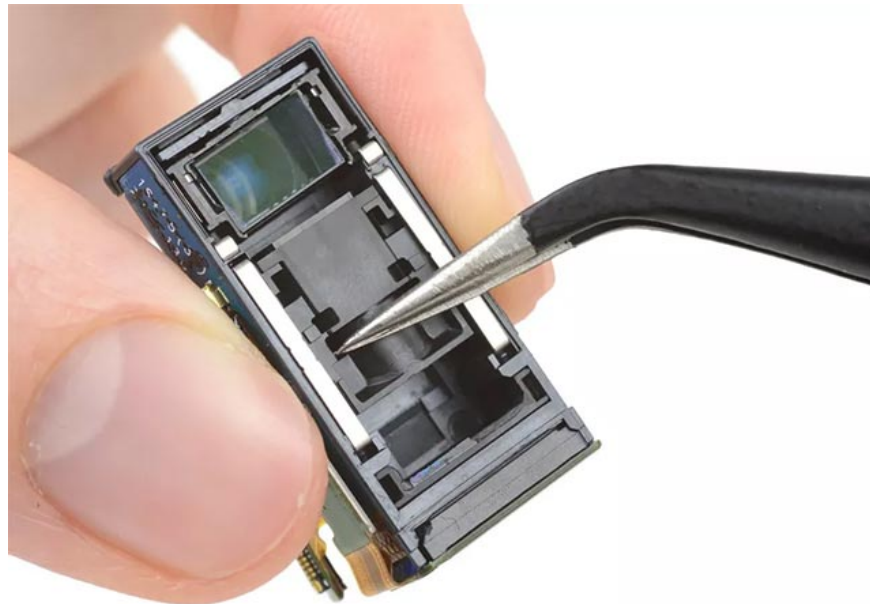
To solve the above question, iFixit has conducted to dissect the interior of Samsung Galaxy S20 Ultra, and the results showed that the Space Zoom 100x lens of this smartphone contains some features and features never seen on any Any other smartphone today.

First, let's take a look at the basic configuration of the Galaxy S20 Ultra Galaxy S20 Ultra rear camera cluster including 4 lenses: 108MP main camera with phase detection, optical image stabilization, f / 1.8 aperture, camera super wide angle 12MP aperture f / 2.2, telephoto camera 48MP aperture f / 3.5 and finally DepthVision depth sensor.

According to a report from the iFixit team, the first special feature noticeable in the Galaxy S20 Ultra camera cluster is the size of the 108MP main sensor. This gigantic sensor has twice the surface area of the 12-megapixel main sensor of the iPhone 11 Pro. A 108-megapixel sensor means that 108 million pixels are 'packed' in a 9.5mm x 7.3mm sensor, resulting in highly detailed images. However, many pixels packed in such a small space can sometimes produce noise, especially in low light. That's why Samsung uses Nonacell pixel processing technology to bring the final image down to about 12MP in certain cases to produce the best quality picture.



Next is the 48.5-megapixel telephoto camera module, the component responsible for 100X zoom. Samsung uses a series of zoom lenses behind the optical stabilizer, which directs light to avoid bouncing to a 90-degree angle, then passes through the zoom lens, then enters the sensor. Overall, the 100x zoom capability is made possible by a combination of sensor crop, digital zoom and software.



Screen 'anatomy' also confirmed Galaxy S20 Ultra owns 5,000mAh battery (however, it will be difficult to replace because the battery is attached directly to the chassis). Besides the 6.9-inch Quad HD + Dynamic AMOLED Infinity-O display, Snapdragon 865 processor, LPDDR5 RAM up to 16GB.



According to iFixit, the repair point of Galaxy S20 Ultra is only 3/10, making it one of the most difficult smartphones to repair today.

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